



OFF-SITE DELIVERY OF AN EXISTING PROGRAM FORM

Sponsoring Institution (s): State Fair Community College

Program Title: Programming

Degree/Certificate: C0

Institution Granting Degree: State Fair Community College

Delivery Site(s): State Fair Community College-Boonville, State Fair Community College-Sedalia

Mode of Program Delivery: Traditional and online

Geographic Location of Student Access: SFCC-Sedalia, 3201 W 16th Street, Sedalia, MO 65301 and SFCC-Boonville, 701 Third Street, Boonville, MO 65233

CIP Classification: 11.0202 (Please provide CIP code)

Implementation Date: Fall 2016

Cooperative Partners: N/A

AUTHORIZATION

Dr. Brent Bates, VP Ed & Student Supp Svcs

12/1/2015

Name/Title of Institutional Officer

Signature

Date

Dr. Brent Bates, VP Ed & Student Supp Svcs

660-596-7252

Person to Contact for More Information

Telephone

## **Justification**

According to the U.S. Bureau of Labor Statistics, the job outlook for computer programmers through the year 2022 will grow at a rate of 25% nationally. Technology is a tool that is used to connect individuals and business on a world-wide scale. Technology is used in all facets of business today. All businesses small and large have some form of technology to keep their organization running smoothly, which has increased the need and demand in the industry. State Fair Community College is looking at this opportunity by offering steps individuals can complete to be successful in the industry. A certificate in computer information systems programming would allow individuals to gain the necessary skills to work as support specialists in the IT field. The certificate program at SFCC will bridge into the Associates of Applied Science degree in CIS and also the Associates of Arts degree. These options will give individuals the ability to further their education and their careers.

## **Demand**

As stated on the student enrollment projections form, enrollment projections were based on local and regional needs, in addition, to the current Associates of Applied Science-Programming degree offered at State Fair Community College in Sedalia. Enrollment for the program will not be capped, but will be determined by class seat availability. Classes will be capped at 25 seats.

According to the U.S. Bureau of Labor Statistics, STEM occupations are paving the way for our economy and future workforce. An increase in the STEM occupations and curriculum in the schools has developed an interest and need in the technology field. Tremendous growth is expected by 2022.

## **Methodology**

Research was conducted on the Bureau of Labor Website, as well as, the Missouri Economic Research and Information Center Website.

## **Collaboration**

In 2012, State Fair Community College-Boonville began offering classes in a remodeled Kemper Military Academy building. With the growth of our current programing, the city has begun renovations on a second building and has agreed to have State Fair lease the building under very reasonable terms. The new building will house the classrooms to offer the skills certificate in CIS-Programming.

## **Program Structure**

The certificate in CIS-Programming is an 18 credit hour, 16 week long program that will offer enrollments in August and January each year. The program can be completed as a full-time or part-time student. The program structure form will provide details pertaining to the specific classes required for completion of the certificate.



## STUDENT ENROLLMENT PROJECTIONS

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Year	1	2	3	4	5
Full Time	10	12	15	20	25
Part Time	3	5	7	9	11
Total	13	17	22	29	36

Please provide a rationale regarding how student enrollment projections were calculated:

Enrollment projections were based on regional and local needs in the IT field, as well as, current enrollment numbers in the AAS CIS-Programming degree at State Fair Community College-Sedalia.

Provide a **rationale** for proposing this program, including **evidence of market demand and societal need supported by research**:

According to the Missouri Economic Research and Information Center (MERIC), many IT jobs require an associates or bachelor's degree, but 40% of the of the Computer Support Specialists job postings found in 2014 only requested a high school degree. This allows individuals seeking the certificate in computer information technology to begin work in the field with the knowledge need to be successful. The U.S. Bureau of Labor Statistic anticipates a growth in computer specialist to grow 17% by the year of 2022. Central Missouri, especially Boone County, is experiencing a growth in entry level IT job openings. According to numbers from the Missouri Burning Glass Technologies, Boone County had 101-250 job openings in entry level IT positions in February 2014. The U.S. Bureau of Labor Statistics contributes the industry growth an increase use of technology in outside fields. STEM (Science, Technology, Engineering, and Mathematics) jobs are said to be the future of our economy. The use of technology services has grown tremendously over the past five years and the growth is expected to continue. An

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Form SE - Student Enrollment Projections



emphasis on STEM curriculum is beginning to make a place for itself in secondary education. Since students are being introduced to the STEM curriculum at an earlier age it is creating a demand at the post-secondary level and in the workforce. MERIC believes that STEM occupations are creating new job openings and also replacing employees as they retire or transfer out of the workforce. The chart below created by MERIC displays the expected growth within the technology field through 2022.

Career Grade	Occupation Title	2012 Estimated Employment	2022 Projected Employment	Openings Due to Growth	Openings Due to Replacement	Total Openings	2013 Average Wage
A	Computer User Support Specialists	14,430	16,614	2,184	2,269	4,452	\$47,687
A+	Computer Systems Analysts	10,910	13,105	2,197	1,720	3,917	\$60,063
A+	Software Developers, Applications	11,747	13,465	1,718	1,506	3,224	\$85,172
B	Computer Programmers	8,863	9,054	191	2,315	2,506	\$71,515
B+	Network and Computer Systems Administrators	8,061	9,340	1,279	1,301	2,580	\$69,640
A	Computer and Information Systems Managers	6,135	6,663	528	652	1,180	\$110,412
A	Civil Engineers	3,940	4,551	611	960	1,571	\$71,351
B+	Mechanical Engineers	3,713	3,900	187	1,267	1,454	\$74,003
B	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	5,600	6,174	574	1,132	1,706	\$65,849
B+	Industrial Engineers	3,623	3,801	178	1,650	1,828	\$77,805
B+	Electrical Engineers	3,362	3,812	450	734	1,184	\$88,513
B	Database Administrators	3,691	3,697	6	653	659	\$76,224
B+	Architectural and Engineering Managers	2,567	2,774	207	630	837	\$117,133
A	Software Developers, Systems Software	3,014	3,437	423	389	812	\$99,030
B+	Computer Network Architects	3,010	3,295	285	473	758	\$96,909
B	Chemists	2,134	2,283	149	553	702	\$68,976
A	Biochemists and Biophysicists	1,300	1,613	313	371	684	\$79,268
A	Information Security Analysts	1,493	1,911	418	235	653	\$78,406
B	Web Developers	2,153	2,419	266	338	604	\$59,007
B	Agricultural and Food Science Technicians	1,203	1,333	130	434	564	\$44,413

Data sources: Missouri Economic Research and Information Center (MERIC) Long-term Occupational Projections, MERIC Occupational Employment and Wage Survey, and U.S. Bureau of Labor Statistics. Career grades are assigned by analyzing an occupation's percentage change, total openings and average wage relative to all other occupations in the state. An occupation's combination of scores on these three variables determines its Career Grade. Product funded by the U.S. Employment and Training Administration (ETA) Workforce Information Grant. October 2014





PROGRAM STRUCTURE

A. Total credits required for graduation: 18

B. Residency requirements, if any: NA

C. General education: Total credits: NA

Courses (specific courses OR distribution area and credits):

Course Number	Credits	Course Title

D. Major requirements: Total credits: 18

Course Number	Credits	Course Title
CIS 103	3	Introduction to CIS
CIS 124	3	Database Management
CIS 145	3	Visual Basic
CIS 155	3	Programming in C#
CIS 154	3	Java
CIS 161	3	Systems Analysis

E. Free elective credits:

NA

(Sum of C, D, and E should equal A.)

F. Requirements for thesis, internship or other capstone experience:

NA

G. Any unique features such as interdepartmental cooperation:

NA

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## PROGRAM CHARACTERISTICS AND PERFORMANCE GOALS

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Institution Name      State Fair Community College  
Program Name          Programming  
Date    October 6, 2015

(Although all of the following guidelines may not be applicable to the proposed program, please carefully consider the elements in each area and respond as completely as possible in the format below. Quantification of performance goals should be included wherever possible.)

### 1. Student Preparation

- Any special admissions procedures or student qualifications required for this program which exceed regular university admissions, standards, e.g., ACT score, completion of core curriculum, portfolio, personal interview, etc. Please note if no special preparation will be required.  
No special preparation will be required.
- Characteristics of a specific population to be served, if applicable.  
Students seeking a skills certificate in Computer Programming will gain the valuable knowledge to find an entry level IT position. The skills certificate will transition in State Fair's Associates of Applied Science CIS-Programming degree, as well as, the Associates of Arts degree. Each option will give students the ability to pursue their education goals to seek the career they desire.

### 2. Faculty Characteristics

- Any special requirements (degree status, training, etc.) for assignment of teaching for this degree/certificate.  
Adjunct instructor must have a Masters in computer information systems/programming or at least 18 graduate hours in the area of emphasis.
- Estimated percentage of credit hours that will be assigned to full time faculty. Please use the term "full time faculty" (and not FTE) in your descriptions here.  
Courses will be taught by adjunct faculty. All adjunct can teach a maximum of 12 credit hours in the fall/spring term.
- Expectations for professional activities, special student contact, teaching/learning innovation.  
N/A

### 3. Enrollment Projections

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- Student FTE majoring in program by the end of five years.  
At the end of five years, full time enrollment is projected to be at 25 students enrolled after the fall and spring semester.
- Percent of full time and part time enrollment by the end of five years.  
69% of students will be enrolled full-time and 31% of students will be enrolled as part-time students.

#### 4. Student and Program Outcomes

- Number of graduates per annum at three and five years after implementation.  
The certificate program is to be completed at the end of each semester. At the end of year three, State Fair Community College anticipates 20 students to graduate with a CIS-Programming certificate. At the end of year five, State Fair Community College anticipates 35 student to have graduated with a CIS-Programming certificate.
- Special skills specific to the program.  
After completion of the CIS-Programming certificate students will be prepared for entry level IT positions. Students will be skilled in using the languages of Visual Basic, C#, Java, and an understanding of database relationships and SQL coding
- Proportion of students who will achieve licensing, certification, or registration.  
80% will achieve certification
- Performance on national and/or local assessments, e.g., percent of students scoring above the 50th percentile on normed tests; percent of students achieving minimal cut-scores on criterion-referenced tests. Include expected results on assessments of general education and on exit assessments in a particular discipline as well as the name of any nationally recognized assessments used.  
N/A
- Placement rates in related fields, in other fields, unemployed.  
90% placement rates
- Transfer rates, continuous study.  
90% transfer/continuous rate on to a AAS CIS-programing degree

#### 5. Program Accreditation

- Institutional plans for accreditation, if applicable, including accrediting agency and timeline. **If there are no plans to seek specialized accreditation, please provide a rationale.**  
State Fair Community College courses and degrees are accredited through the Higher Learning Commission (HLC), a Commision of North Central Association of Colleges and Schools (NCA).

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## 6. Alumni and Employer Survey

- Expected satisfaction rates for alumni, *including timing and method of surveys*.  
State Fair does not currently administer alumni surveys.
- Expected satisfaction rates for employers, including timing and method of surveys.  
N/A

## 7. Institutional Characteristics

- Characteristics demonstrating why your institution is particularly well-equipped to support the program.

State Fair Community College is particularly well-equipped to offer a CIS-Programing certificate because of our experience and success with the AAS CIS-programing degree. The certificate will give State Fair another market to offer education to. As research as shown, a certificate in programing can offer many students the bridge needed to gain successful employment and eventually further their education. We have successfully offered an AAS degree in CIS-progaming and believe the certificate will allows us to better serve our students in our service area.